

Decision Document Summary

Eric's Main Street Mobil/BP Service Station

Flemington Borough, Hunterdon County

October 2008

Purpose Of This Notice

The New Jersey Department of Environmental Protection's (NJDEP) Site Remediation Program has drafted a Draft Decision Document (DD) Report. The report identifies the remedial alternatives planned to address soil and ground water contamination at the Eric's Main Street Mobil/BP Service Station site (Site) located at 144 Main Street in Flemington. **NJDEP has prepared the document for public release and is soliciting public comments during the public comment period that runs for 30 days from October 23 through November 22, 2008.**

Site Background

The Site is a 0.25-acre property located at the intersection of Main and William Streets. The Site was formerly used as a gasoline filling station from the 1950s and is currently occupied by an automotive service facility. The pumps and tanks from the former filling station are still on site; however, they are currently inactive.

Based on NJDEP records, a release of gasoline occurred at the Site. In 1992, Immediate Environmental Concern (IEC) status was

imposed by NJDEP due to the human health risks associated with the Site-related contamination. Specifically, free-phase product and gasoline vapors were detected in a subsurface telephone utility vault located downgradient of the Site.

In 1993, petroleum odors were detected in two downgradient subsurface utility vaults and in the basement of the United Telephone building. At that time, the contamination was traced to Eric's Main Street Mobil/BP, where the NJDEP documented the presence of one half-foot of gasoline in each of the four observation wells in the underground storage tank (UST) excavation area. The vacuum tightness testing in 1993 and 2000 showed that the integrity of the three USTs and associated piping is intact, indicating that the contamination was likely the result of a surface release. It is suspected that this surface release occurred as a result of poor filling procedures and faulty spill buckets associated with the tanks. Gasoline is believed to have entered the UST excavation backfill through cracks in the concrete and asphalt, and through the four observation wells, which are screened to the ground surface.

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New Jersey Department of Environmental Protection
Site Remediation Program, Office of Community Relations
www.nj.gov/dep/srp/community/

Jon S. Corzine
Governor



Lisa P. Jackson
Commissioner

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Remedial Investigation Summary

Initial Remedial Investigation (RI) activities at the Site were conducted by The Louis Berger Group (Berger), the state's contractor, between June 2001 and May 2002 to address the Site's IEC status and focused on the evaluation of potential receptors and source characterization. The investigative activities included a soil boring and sampling program, monitoring well installation and ground water sampling, as well as a utility vault water investigation, indoor air investigation, soil gas sampling program and receptor evaluation. Based on consideration that potable wells were a potential receptor, six domestic wells within 1000 feet of the site were sampled in March 2003. No gasoline-related compounds were detected.

Supplemental RI activities focusing on the ground water contamination were subsequently implemented between April and August 2004. The full horizontal and partial vertical delineation of Site-related ground water contamination was later completed in 2005.

The results of the RI indicate the presence of contamination above the applicable remediation standards in the water in the UST excavation area, the soil in the vicinity of the UST excavation area and the ground water beneath the Site. The findings also verified that the gasoline-contaminated water in the UST excavation backfill is the residual source of current contamination in soil and ground water, as well as the previous source of contamination in utility vault water. The primary migration pathway of the contaminated water from the excavation is through the adjacent fuel supply piping trench, which discharges to the surface at the terminus of the trench north of the pump island.

Two additional rounds of ground water sampling were conducted at the Site in August and November 2006. The analytical results show a decreasing trend of ground water contamination at the Site. Ground water contaminants previously detected above standards during the 2004 RI activities were detected with lower concentrations at all of the ground water monitoring wells sampled in these additional sampling events.

Based on the results of the RI activities, the primary media of concern that warrant remedial action are the gasoline-contaminated backfill in the UST excavation area and ground water.

Remedial Action Selection Evaluation

As a result of the investigation, NJDEP has developed a Remedial Action Selection Evaluation (RASE) to identify and evaluate viable remedial approaches to address the documented soil and ground water contamination in a manner that would result in the attainment of remedial action objectives.

Various technologies were evaluated as viable remedial approaches to address the media of concern at the Site. The remedial approaches were evaluated against the remedial action criteria - effectiveness and reliability of attaining the applicable remediation standards, reduction of toxicity, mobility and volume (TMV), risk minimization, implementability, compliance with applicable laws and regulations, potential impact on the local community, potential for natural resource injury, and estimated costs.

Based on the evaluation of the viable remedial approaches against the remedial action criteria, **Underground Storage Tank and Piping System Removal, Soil Excavation and Off-site**

Disposal is the preferred remedial approach for the on-site soils. **Long-term Monitoring with Institutional Controls/Classification Exception Area (CEA) Establishment** is the preferred remedial approach for the ground water contamination. Detailed discussion of the preferred remedial approaches are presented in the following sections.

Soils Remedy

UST System and Contaminated Soils Removal

- This remedial approach involves the removal of the existing UST system and contaminated soils within the UST excavation and piping trench, followed by post-excavation sampling. This remedial approach allows for permanent removal of the source of ground water contamination and significant reduction of risk to human health. It will also result in immediate compliance with the applicable soil remediation standards.

Following UST and soil removal, the excavation would be backfilled with concrete-stabilized sand to prevent additional water collection in the excavation. The replacement of the asphalt on completion of the remedial action would aid in reducing infiltration of precipitation into the area. All contaminated media removed would be disposed/recycled off-site in accordance with applicable federal and state regulations pending waste characterization.

Ground Water Remedy

Long-term Monitoring with Institutional Controls/CEA Establishment - This remedial approach uses long-term monitoring and institutional controls with a Classification Exception Area (CEA) to track contaminant degradation and limit exposure. Due to the site

geology it is impractical to implement any cost-effective active remediation at the site.

Monitoring will consist of quarterly ground water sampling for the first two years; semiannual sampling for the next three years; and annual sampling for the remaining 15 years. Ground water samples would be collected from source area wells, plume fringe wells, and sentinel wells. It should be noted that four additional couplets of monitoring wells, which will serve as plume fringe wells, would be installed between the source area wells and the sentinel wells.

Based on NJDEP ground water investigations over several years, it is projected that natural processes (Natural Attenuation) will degrade ground water contaminants to meet Ground Water Quality Standards (GWQS) within twenty years. This is conservative assumption, not factoring in the planned remediation of the UST contaminant source.

The Institutional Control for the Site would consist of development of a CEA. A CEA indicates that ground water standards in a specific area will not be met for a defined duration. This ensures that a designated aquifer in a specific area is restricted until GWQS are achieved. The public will be noticed of the establishment of the CEA.

The ground water monitoring program and CEA will be evaluated during the mandatory biennial (every two years) CEA certification submission. The biennial certification report is required to ensure the remediation of the Site remains protective to human health and the environment. NJDEP will then have a clearer assessment of whether Natural Attenuation is progressing as anticipated, with the added benefit of removal of the UST source area.

Estimated Costs of Preferred Remedies

Capital Costs

Soils \$130,000

Ground Water \$ 60,000

Operation & Maintenance Costs (20 years)

Ground Water \$540,000

Draft Decision Document and Public Comment Period

NJDEP has prepared a Draft Decision Document to present the NJDEP's proposed remedial actions for the Site. A public comment period runs for 30 days from October 23 through November 22, 2008. Please direct any written or oral comments to the NJDEP at:

NJDEP Office of Community Relations
401 East State Street, PO Box 413
Trenton, NJ 08625

Mark Herzberg, Community Relations Coor.
(609) 633-1369
(800) 253-5647
mark.herzberg@dep.state.nj.us

The following site-related documents are available for review at the repositories listed below.

- Remedial Investigation Report - August 2005
- Remedial Action Selection Evaluation - February 2006
- Draft Decision Document - June 2008

*Flemington Borough Municipal Building
38 Park Avenue
Flemington, NJ 08822
Diane Schottman, Borough Clerk
(908) 782-8840*

*NJDEP Office of Community Relations
401 E. State St.
Trenton, NJ 08625
Mark Herzberg, Community Relations Coor.
(609) 633-1369*

Documents are also available for your review on-line at <http://www.nj.gov/dep/srp/community/sites/erics>.

**For more information about the
Eric's Main Street Mobil/BP site
please contact**

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(609) 633-1369
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